

Tackling Canada Thistle in an Organic Orchard by Chris McGuire

Organic apple growers Chris and Juli McGuire were concerned about the proliferation of Canada thistle in their Lafayette County, Wisconsin apple orchard. The McGuires raise two acres of apples together with other fruits and market them through a community-supported agriculture (CSA) program and local grocery stores. Like most apple growers today, they raise dwarf apple trees because the compact dwarf trees are easy to work with, and they bear fruit quickly, providing a rapid return on investment.

But dwarf apple trees also have shallow roots and can't withstand competition from weeds. The McGuires spread a thick layer of bark mulch under the trees, which keeps most weeds at bay, but they've struggled to control Canada thistle.

"Canada thistle is a perennial weed that spreads from deep roots," said Chris McGuire. "Once a patch gets established in our mulch, it proliferates. It's impossible to dig it out without uprooting the nearby fruit trees. As certified organic growers, we don't spray systemic herbicides to kill it."

After years of struggling with Canada thistle and watching it spread through their orchard, the McGuires received an NCR-SARE Farmer Rancher grant to trial organic methods for controlling the troublesome weed. Over the 2019 and 2020 growing seasons, they reduced Canada Thistle populations from over 1,300 shoots to zero in experimental plots within their orchard.

"The key," said Chris McGuire, "is that you have to kill the thistle shoots every three weeks repeatedly. They grow back, and then you kill them again three weeks later. We found that any method of killing the shoots is effective – cutting, pulling, or spraying with an organic herbicide. In the past, we would chop out thistle patches every 5-8 weeks, and that's not often enough. The short, three-week interval exhausts the

plants and depletes their strength, gradually killing them. By the end of a single growing season, only a few straggler plants remained in our plots, and by the end of the second year, they were eradicated."

Tackling Canada Thistle

Repeatedly killing thistle plants can be time-consuming and expensive. The McGuires tracked their time using different techniques and found that cutting the thistles close to the ground with a gas-powered string trimmer and slicing them off with a diamond hoe were the most cost-effective techniques.

- They could control Canada Thistle patches within 1-2 growing seasons by repeatedly cutting down the shoots on three-week intervals.
- Hoeing and string trimming were both more efficient than hand-pulling and spraying an organic herbicide.
- Mulching with recycled cardboard underneath the usual hardwood bark mulch hastened the reduction in thistle populations but required too much time to be worthwhile.
- Hand-pulling the shoots (while wearing gloves!) was much more time-consuming.
- Spraying an organically-approved herbicide (Avenger Weed Killer brand) was quick but expensive because of the high cost of the product.

Dig Deeper

The McGuires shared a report online at <http://www.twoonionfarm.com/CanadaThistleFinalSummary.pdf>.

To learn more about this NCR-SARE Farmer Rancher grant project, visit the SARE project reporting website at <https://projects.sare.org/project-reports/fnc19-1181/>, or contact the NCR-SARE office.

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At Two Onion Farm in Wisconsin, Juli (far left) and Chris McGuire (far right) discovered that hoeing and string trimming Canada thistle was more efficient than hand-pulling and spraying an organic herbicide. Above photos courtesy of Two Onion Farm.

NCR-SARE Awards \$6.3 Million in Grants

NCR-SARE is pleased to share the results for our grant programs for 2021. NCR-SARE's competitive grant programs awarded 140 projects more than \$6.3 million this past year; the programs offer grants for producers, researchers, students, educators, organizations, and others who are exploring sustainable agriculture in America's Midwest. Another \$799K supported NCR-SARE's regional state coordinators, who train agriculture professionals in sustainable practices and raise awareness about SARE resources.

The Farmer Rancher Grant Program is a competitive grant program for farmers and ranchers who want to explore sustainable solutions to problems through on-farm research, demonstration, and education projects. In 2021, 58 grant projects were selected to receive a total of more than \$709,000 through NCR-SARE's Farmer Rancher Grant Program.

For the 2021 Youth Educator Grant Program, NCR-SARE awarded more than \$60,000 to 16 projects. The competitive Youth Educator Grant Program supports educators who seek to provide programming on sustainable agriculture for youth.

The Graduate Student Grant Program is a competitive grant program to fund graduate student projects that address sustainable agriculture issues. For the 2021 Graduate Student program, NCR-SARE awarded more than \$347,691 to 24 projects.

For the 2021 Partnership Grant Program, NCR-SARE awarded more than \$638,000 to 16 projects. NCR-SARE's Partnership Grant Program is intended to foster cooperation between agriculture professionals and farmers and ranchers to catalyze on-farm research, demonstration, and education activities.

The Research and Education Program is a competitive grant program for researchers and educators involved in projects exploring and promoting environmentally sound, profitable, and socially responsible food and/or fiber systems. For the 2021 Research and Education program, NCR-

SARE awarded more than \$3.7 million to 15 projects.

For the 2021 Professional Development Program, NCR-SARE awarded almost \$931,360 to 11 projects. NCR-SARE Professional Development Program competitive grants emphasize training agricultural educators in extension, the Natural Resources Conservation Service, private, and not-for-profit sectors, using farmers as educators and addressing emerging issues.

Visit the NCR-SARE website for more information about funded projects, timelines, and information on how to apply at <https://northcentral.sare.org/grants/apply-for-a-grant/>, or contact the NCR-SARE office.

To learn about the SARE grants in your state, visit the NCR-SARE website: <https://sare.org/grants/funded-grants-in-your-state/>, where you can view a portfolio summary and list of grants funded for every state and island protectorate. The focus for each of the NCR-SARE grant programs is on research and education. Funding considerations are based on how well the applicant presents the problem being addressed, the project's relevance to sustainable agriculture in the 12-state North Central region, and how well it aligns with NCR-SARE's goals, among other factors specific to each grant program.

NCR-SARE's Administrative Council (AC) members decide which projects will receive SARE funds. The AC includes a diverse mix of agricultural stakeholders in the region. Council members hail from regional farms and ranches, the Cooperative Extension Service, universities, federal agencies, and nonprofits. Since 1988, the SARE program has helped advance farming systems that are profitable, environmentally sound, and good for communities through a nationwide research and education grants program. Part of USDA's National Institute of Food and Agriculture, the program funds projects and conducts outreach to improve agricultural systems.

Apply for a Grant

NCR-SARE currently has four open grant programs! If you are interested in writing a proposal for an NCR-SARE grant, we are here to help. We can provide grant reports from other projects, lists of funded projects, or other sustainable agriculture information. Visit <https://northcentral.sare.org/grants/apply-for-a-grant/> for more information or contact the NCR-SARE office.

Grant-Writing Assistance from SARE State Coordinators

SARE has a network of state coordinators working in each state and island protectorate. Your SARE state coordinator can provide advice and feedback as you work on your grant proposal. Find your SARE State Coordinator and view documents about funded grants in your state by visiting NCR-SARE online at <https://northcentral.sare.org/state-programs/state-coordinators/>.

Michael Fields Grant-Writing Assistance

The Michael Fields Agricultural Institute's (MFAI) Grant Advisory & Resources can help you apply to grants and cost-share programs of state or federal sources. For more information and to sign up for grants advising email list for program announcements, please visit the website at <http://michaelfields.org/grant-advising-resources/>, or contact MFAI Grants Advisor, Martin Bailkey at (608) 698-9478 or martinbailkey@gmail.com.



Virtual Field Days

Need to convert your in-person field day to a virtual one? NCR-SARE recorded two webinars for SARE grantees with tips about hosting virtual field days. The first webinar was hosted with agricultural professionals and educators in mind, while the second webinar was geared toward farmers and ranchers. Find SARE's virtual field day information online at <https://www.sare.org/publications/farmer-field-day-toolkit/hosting-virtual-field-days/>.

Washing Greens Efficiently

Mad Farmers Collective is a small but highly productive urban market farm located in downtown Indianapolis. They process about 200 pounds of salad greens for farmers market customers and 5-10 local restaurants each week. A few years ago, they decided their greens production wasn't as sustainable as it could be. It was time-consuming and physically taxing, and the salad greens got in the way when other crops needed to be cleaned.

"One of the surest ways for a farm to realize the full financial benefits of salad green production is to ensure that the entire process is pursued as efficiently as possible," said Mad Farmers Collective farmer Matthew Jose. "Even if the bed preparation, crop care, and harvesting are completed easily and quickly, it is easy for those efficiencies to be lost in the processing stage. The harvest tote might be incorrectly sized for the task, small-batch washing might be too time-consuming, and the resources devoted to salad green processing might negatively impact the processing of other crops."

Building a New Greens Washing Station

Jose and the Mad Farmers Collective wanted to design a low-cost, efficient greens processing system to share with other small-scale farmers. With support from a \$6,210 NCR-SARE Farmer Rancher grant, they built a new salad greens-specific wash area that works for spinach, arugula, lettuce mix, and baby mustards.

- They built a new wash station shelter using flexible, double-walled greenhouse plastic for the structure and landscape fabric and gravel for ground covering (right, top).
- They built tables for storing harvested greens and recently washed/dried greens.
- They purchased a greens bubbler tutorial from Dry Your Greens and modified the plan slightly using a 100 gallon Rubbermaid structural foam stock tank. A 1 hp blower from an online jacuzzi supply blows air through a PVC tube system for circulation. An industrial sink drain and an attached flexible drain pipe direct water away from the wash station (right).
- The greens are transferred from the bubbler to orange fish baskets with a basic pool skimmer. Two pounds of greens can be put into the basket at a time. The greens drip-dry in the basket for several minutes before the basket (with greens still inside) is placed into a converted washing machine used for drying (right, bottom).
- They purchased the materials for a washing machine conversion from Dry Your Greens to create a greens spinner. They used a Whirlpool Cabrio model and mentioned that it is critical to use a washing machine model that meets the specifications referenced in the tutorial. Greens spin for 2 minutes and are poured into a clean tote. Jose noted that many pieces of hardware that came with the kit weren't used, and in hindsight, he would have just purchased the tutorial and, from there, figured out what specific pieces were needed for the washing machine conversion (right).
- Jose suggests that growers think through the physical placement of all of the various pieces, saying, "Spending the time up-front to figure out the flow of movement, material storage, and drainage considerations will nearly always (in my opinion) result in a better-designed wash/pack area."

Mad Farmers Collective likes the new system saying that it has cut the washing/drying time nearly in half. The new system allows for increased production. The ergonomics of the new wash station have also improved.

"One of the unexpected improvements that came about with these wash station improvements was the ability to multi-task," said Jose. "The fact that both the bubbler and the spinner are set on timers allows the operator to start the process and attend to another task in the wash station while the greens are bubbling or spinning. This unexpected improvement has increased the efficiency of the wash station. Fewer people are needed to process the vegetables as they come in from the field, and there is less overall time spent in the wash station, as tasks can be stacked and attended to at the same time."

Dig Deeper

Watch a video of the greens wash station in action online at <https://vimeo.com/426358468/bb7fee5e60>. For more information on this NCR-SARE Farmer Rancher grant project, visit the SARE project reporting website at https://projects.sare.org/sare_project/fnc18-1129/.

Greens Washing Station

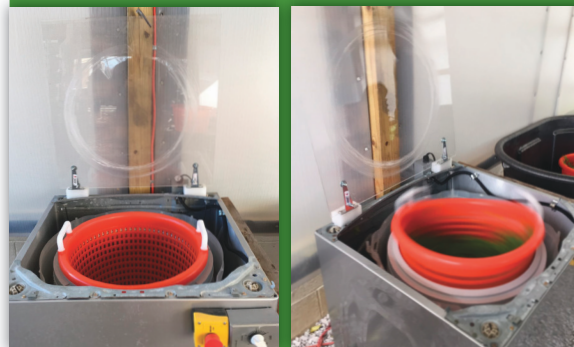
With support from SARE, Mad Farmers Collective built a new greens washing station that improved productivity, ergonomics, and efficiency. Photos by Matthew Jose.



Greens wash and dry station.



Greens washing bubbler.



Greens drying spinner.



Greens processing tools.

LAAZY Hives: Ergonomic Hive Alternative

Beekeepers in Ohio designed and built a LAAZY Hive system for beekeeping that allows them to access their hives while seated. New beekeepers Brian and Emily Kellett participated in the project (right). Photos courtesy of Jeannie Saum.



Beekeeping can be hard work. Repeatedly lifting 60 pounds of hive material and honey is difficult, if not impossible, for many. Ohio beekeeper Jeannie Saum had limited mobility after two back surgeries, and some of her neighboring beekeepers had similar physical concerns.

“We are two families of beekeepers with eight years experience keeping bees on our one and two-acre country lots, respectively,” said Saum. “We had been keeping bees in traditional Langstroth hives, but aging and health issues have made sustaining our practice increasingly difficult due to the physicality of beekeeping. Working in the heat, as well as standing, bending, and lifting have become difficult for some of us.”

Converting Langstroth to AZ-Style

They learned about a method of horizontal beekeeping done in Slovenia. These Slovenian hives (also referred to as AZ hives) are mounted in a structure with beekeepers working hives on a stool. But the AZ hive’s price tag was too steep for Saum and her neighbors. With support from a \$14,986 SARE Farmer Rancher grant, the beekeepers set out to convert their existing Langstroth-style beehives to the more ergonomic AZ-style hives and build accessible hive shelters.

“The design of the AZ hives takes away the physical demands of beekeeping: standing, lifting, bending, carrying heavy boxes, and suffering in high heat and humidity,”

explained Saum. “However, replacing one’s existing hive equipment with AZ-style hives is cost-prohibitive. We set out to find an economical way to modify Langstroth hive components that beekeepers already have into Slovenian AZ-style beehives using common hand power tools that most people have. We wanted this to be doable by the average person with only basic woodworking skills.”

The team came up with a way to convert Langstroth components they already owned into AZ-style hives, which they refer to as LAAZY hives. The team included Steve and Jeannie Saum, beekeepers Peter and Laurie Dotson, and Brian and Emily Kellett (above), who were new beekeepers. They used the existing woodenware from their Langstroth hives, \$80 of additional lumber and hardware, standard power tools, fundamental skills, and some manual labor.

Saum reported that converting traditional Langstroth hive parts into AZ-style hives using their plans was 18% of the cost of purchasing an AZ-style pack in the US, excluding shipping costs.

Building a More Ergonomic Bee Shelter

They constructed a bee shelter wall for the Dotson’s LAAZY hives (pictured lower right). The Saums went a step further and converted an old travel trailer into a bee house by gutting the inside and adding framing, siding, and a peaked roof (lower left). The Saums can inspect the hives from inside the camper using a rolling

office chair. Doing seated inspections meant Saum needed to modify a beekeeping veil and add long patches to the front of her pants to reduce leg stings. Saum also used a more extended machete-style tool for inspections instead of the shorter standard hive tool. Saum is happy to report that she can now work with bees in their LAAZY hives.

“Probably the most crucial lesson I have learned is that when beekeeping in the AZ-style hives, one cannot be lackadaisical about scheduling hive inspections,” said Saum. “Most of the Slovenian hives are only two-three boxes high. We built our hives four boxes high because we have a longer growing season in Ohio than in Slovenia. Managing the size of the colony and changing the size of the hive, up to four boxes high, is crucial for maintaining the orderliness inside the hive and preventing swarms.”

Dig Deeper

View detailed plans for the LAAZY style hive online at <https://northcentral.sare.org/resources/the-laazy-hive-plans/>. For more information on this NCR-SARE Farmer



Rancher grant project, visit https://projects.sare.org/sare_project/fnc18-1142/ or contact the NCR-SARE office.

Ergonomic Beekeeping

The LAAZY Hive bee system features Langstroth hives that have been converted to AZ-style hives. The hives are mounted on a frame in a wall.

The hives can be inspected from inside a bee house (left), or from behind a bee shelter (right), and in either case the beekeeper can be seated.



NCR-SARE Heroes: Paula Ford and Rebecca and Jim Goodman

In 2012, the NCR-SARE Administrative Council created the NCR-SARE Hero Recognition to highlight, recognize, and pay tribute to those who have made significant contributions to NCR-SARE and/or National SARE. NCR-SARE is pleased to announce that Paula Ford and Rebecca and Jim Goodman have been named the 2021 NCR-SARE Heroes.

Paula Ford (Presented Posthumously)



2021 NCR-SARE Hero, Paula Ford. Photo courtesy of Bill Hargrove.

Dr. Paula Bridgid Ford was raised in the suburbs of Chicago until her family moved to North Carolina when she was a teenager. She graduated with honors from Clemson University in 1987 with a B.S. degree in Agronomy and completed her M.S. in Soil Science at The University of Georgia in 1989, where she also began her career with SARE.

Ford supported sustainable agriculture and SARE for more than 20 years. From 1991-1997, she served as the Program Coordinator for the Southern Region SARE program where she helped conceptualize and initiate Southern SARE's 2010 System Research Methods Handbook. She then moved on to a new role as the North Central Region SARE Professional Development Program Coordinator at Kansas State University for 11 years (1999-2009), where she worked to improve SARE's outreach capacity by reimagining and strengthening the SARE State Coordinator program. An expert at evaluation and measuring impacts, she provided the vision and leadership to improve evaluation and outcome-based programming planning for NCR-SARE.

After moving on from SARE and receiving her doctorate in human nutrition from Kansas State University in 2009, Ford became an assistant professor at the College of Health

Sciences, University of Texas at El Paso (UTEP) in 2009. During her two-year tenure at UTEP, she was the Lead Investigator or Co-Lead for almost \$2 million in competitive grants. In 2011, she received the Outstanding Research and Performance Award from UTEP's College of Health Sciences. The College of Health Sciences established a scholarship for Master of Public Health students at UTEP in her name.

To honor Ford's contributions to NCR-SARE, the Administrative Council created the 'Paula Ford Professional Development Program Proposal of the Year' award. Each year, one Professional Development Program-funded project in the North Central region is given this special designation. The region selects the project that best exemplifies Dr. Ford's contributions and passion for evaluation, professional development, and/or science-based research.

Ford passed away on October 8, 2011. This recognition was presented posthumously to her husband, Dr. Bill Hargrove.

Rebecca and Jim Goodman



2021 NCR-SARE Heroes, Rebecca and Jim Goodman. Photo by Bill Lubing.

Jim and Rebecca Goodman were brought up in the region's farming community. Jim's family immigrated to Wisconsin in the 1840s during the Irish Potato Famine, and Jim is the third generation of Goodmans to operate the farm. Rebecca grew up on a small grain farm in southwest Minnesota. Although Jim took farming breaks briefly to pursue a B.S. in Animal Science from Wisconsin-Platteville and an M.S. in Reproductive Physiology from South Dakota State University, Jim and Rebecca still live on the farm where Jim was born and raised.

In 1979, the couple took over Goodman's family farm in southwest Wisconsin with Jim's brother, Francis. Over the next 20 years, they raised two children and ran their farm conventionally. But in the mid-1990s, they felt compelled to change the trajectory of their farm for financial reasons, environmental concerns, and a desire to improve the quality of their lives as well as those around them. They became certified organic in 1999, and from then on, they ran a 45-cow organic dairy and direct-market beef farm. They sold their milk to Cedar Grove Dairy and marketed their beef at the Dane County farmers market in Madison, Wisconsin, known for being the largest producer-only farmers market in the country. Jim and Rebecca retired from farming in 2019, but they didn't stop working for farmers.

As farmer advocates and activists, both Jim and Rebecca have served many organizations including Family Farm Defenders, Midwest Environmental Advocates, Center for Food Safety, and Organic Consumers Association. They are both members of the National Family Farm Coalition, where Jim currently serves as president. Rebecca served on the Dane County Farmers Market Board of Directors and served as board president. Jim is a writer and a past Institute for Agriculture and Trade Policy Food and Society Fellow. Since retiring from farming, the Goodmans continue to share their story and present educational workshops on organic farming and direct marketing.

Active with SARE for more than 20 years, Jim Goodman served two terms on the NCR-SARE Administrative Council from 1999-2002 and 2010-2014. He was a member of NCR-SARE's Farmer Rancher Grant review committee from 2010-2015 and chaired the Administrative Council in 2015. The Goodmans also received a SARE grant in 1996 titled, "Northwood Farm Sustainably Raised Beef." Jim added, "Had it not been for Rebecca doing chores for me I probably would have missed a few of those SARE adventures."

Read tributes and learn more about the NCR-SARE Heroes online at <https://northcentral.sare.org/about/regional-initiatives/ncr-sare-hero-recognition-program/>.

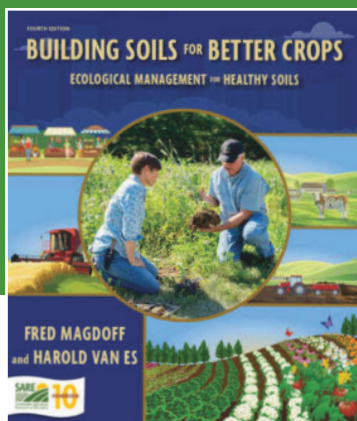
New Edition: Building Soils for Better Crops

Now more than ever, it is abundantly clear that healthy soils play an essential role in productive agricultural systems. Soils are foundational to the food we eat and fundamental to life on earth. Focusing on sustainable soil management has shown to increase farm and ranch profitability, improve crop yield, and provide other critical services related to water, air, and climate. SARE's newest book, the fourth edition of *Building Soils for Better Crops*, provides rich detail on ecologically sound practices for developing and maintaining healthy soils. It is a must-read for farmers, educators, and students alike. The new edition of this highly regarded book provides critical updates to reflect the new science and many new, exciting developments in soil health over the past

12 years. *Building Soils for Better Crops*

includes detailed information on soil-improving practices as well as in-depth background, from what soil is to the importance of organic matter. Along with providing practical strategies for achieving agricultural sustainability with high-quality soil, the book presents readers with a holistic appreciation of the importance of soil health.

Written by Fred Magdoff and Harold van Es, *Building Soils for Better Crops* is free to read online or to download at www.sare.org/soils.



New Bulletin: An Educator's Guide to Best Practices for Adult Learning

Studies show that farmers learn best through in-person, face-to-face educational programs. But learning opportunities often miss the mark due to content choice, disorganization or lack of understanding of participants' learning styles. Educators that use best adult learning practices have a greater effect on participants' learning and retention, and empower farmers to make sustainable changes to their operations.

SARE's newest free bulletin, *Sustainable Agriculture Through Sustainable Learning*, presents five best practices educators can use to facilitate effective learning among farmers and thus improve agricultural sustainability.

Incorporating effective learning practices before, during and after educational programs is crucial to encouraging learning among farmers. Educators can maximize the impact of learning opportunities by:

- making the content relatable
- engaging positive emotions
- giving learners choice
- identifying mental models and
- providing opportunities for practice and application

Download or order your free print copy of *Sustainable Agriculture Through Sustainable Learning* at <https://www.sare.org/resources/sustainable-agriculture-through-sustainable-learning/> or by calling (301) 779-1007.

NCR-SARE Grants At-A-Glance

Learn more about exciting SARE-supported projects! Use the project number listed with these projects to find more information at <https://projects.sare.org>, or follow NCR-SARE on Facebook or Twitter to receive regular updates like these:

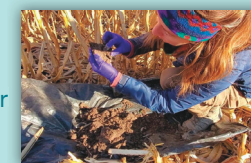
At North Dakota State University, Miranda Meehan received SARE support to evaluate the influence of grazing management in integrated crop-livestock systems. This is SARE project LNC19-426. Photo by Miranda Meehan.



In Lincoln, Nebraska, Community Crops is working with Yazidi farmers to test different low-cost weed suppression strategies for two culturally important crops, eggplant and pickling peppers. This is SARE project ONC21-089. Photo by Sam Wortman.



Southern Illinois University Carbondale's Amanda Weidhuner received SARE support to study soil ecosystem services and the economic benefits of no-till. This is SARE project GNC19-292. Photo courtesy of Southern Illinois University Carbondale.



Chryseis Modderman is working with livestock farmers in Minnesota and North Dakota on the benefits and basics of composting manure. This is SARE project LNC19-427. Photo courtesy of NDSU Livestock Environmental Management.



Illinois farmer Shirley Johnson is using woodchip bioreactors to remove nitrogen from tile drainage under an organic cropping system. This is SARE project FNC21-1279. Photo courtesy of R. Christianson/UIUC.



From a small piece of land in Lawrence, Kansas, Pantaleon Florez III directly markets vegetables and works to feed those in need. His farm, Maseualkualli Farms, means “The People’s Farm” in Nahuatl, the language of the Indigenous Uto-Aztecan people. Combining his interests in Indigenous food, crop diversity, and no-till practices, Florez applied for and received an \$8,908 NCR-SARE Farmer Rancher grant to study growing three different varieties of heirloom corn using organic, no-till methods.

Testing Heirloom Corn Varieties

Working with two students from the University of Kansas, Paola Ramírez Peña and Ashley Aranda, they planted trial plots of Guanajuato 31, Michoacan 333, and Organic Blue Corn.

Interested in Mexica ancestral knowledge, Florez studied cultivation practices described in the Florentine Codex, a 16th-century Mesoamerican ethnographic book series. The team read about a growing method that required hilling soil around the base of the plant multiple times across the growing season. They compared this method with no-till best practices from the University of Nebraska-Lincoln’s Cropwatch.

To achieve the Florentine method of hilling the soil multiple times, they used a u-bar double wheel hoe with hilling plow blades and built-in leaf sweeps. While labor-intensive, Florez reported that the Florentine method improved overall stability, which led to increased vigor and yield in those samples. The Guanajuato variety showed the most drastic difference between the Florentine and conventional no-till production methods; the Florentine sample yielded 1.99 lbs. of maize while the conventional no-till sample yielded 1.74 lbs.

Kansas Farmer Tests Heirloom Corn Varieties

Pantaleon Florez studied no-till growing methods of heirloom corn at Maseualkualli Farm in Lawrence, Kansas. Photos by Pantaleon Florez.



Sharing Perspectives

Because they valued the recorded knowledge of those who grew maize before them, the team members created ethnographic accounts to share their experiences.

“The work we did on the farm grew into stories to share with my grandmothers in Mexico and a way to entertain my younger sisters as we cultivated our gardens here,” said project participant Paola Ramírez Peña. “Through the ancestral seeds and farming practices, I became inducted into a long-standing culture built around maíz.”



Paola Ramírez Peña & Ashley Aranda enjoying huitlacoche.

All three ethnographies included accounts of discovering an edible fungi called huitlacoche in their crop (left). The emergence of this ancestral delicacy was meaningful for the entire group.

“The ancestors had sent a gift,” recalled Florez. “I felt gratitude. A comforting and cool breeze picked up. My heart was open, and I felt closer to my ancestors. I felt deeply validated in my research. I felt a deep sense of purpose. This is the work I am supposed to be doing.”

They shared the corn they grew and information about the corn varieties through markets and community events. Florez is currently collaborating with a local Peruvian farmer to grow a purple corn variety for making dyes and chicha

morada, a Peruvian drink made with corn, pineapple, quince/apple, cinnamon, and clove.

To read more about the corn variety trials and to read the complete ethnographies mentioned in this story, visit the SARE project reporting website <https://projects.sare.org/project-reports/fnc19-1161/>, or contact the NCR-SARE office.

NCR-SARE’s New Administrative Council Members

Marisol Berti, Miranda Duschack, Donna Pearson McClish, and Eli Ortiz-Barbosa were recently elected to the NCR-SARE Administrative Council (AC). The Administrative Council sets program priorities and makes granting decisions for NCR-SARE.

Marisol Berti has been elected as agricultural experiment station representative for the AC. A professor in forage and biomass crop production at North Dakota State University, Berti conducts forage, cover crops, and biomass field production research.

Miranda Duschack has been elected as the new representative of an 1890 land grant institution for the AC. Duschack serves as the Innovative Small Farmers’ Outreach Program area coordinator and Saint Louis County Farm Outreach Worker for Lincoln University in Missouri.

Donna Pearson McClish has been elected as an at-large farmer/rancher representative for the AC. Pearson McClish owns and operates Common Ground Producers and Growers, a mobile market in Wichita, Kansas, that serves senior centers and low-income housing units.

Eli Ortiz-Barbosa has been elected as the Natural Resources Conservation Service representative for the AC. Ortiz-Barbosa is an NRCS soil conservationist in Franklin County, Ohio.

NCR-SARE would like to extend gratitude to Sarah Lovell and Erin Schneider, whose terms on the Administrative Council have ended.

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Did you know NCR-SARE is on Facebook, YouTube, Instagram, and Twitter? Keep track of our grant opportunities, projects, events, and more. Follow, like, or friend us!



ABOUT NCR-SARE

NCR-SARE funds cutting-edge projects every year through competitive grant programs, and has awarded more than \$80 million worth of grants to farmers and ranchers, researchers, students, educators, public and private institutions, nonprofit groups, and others exploring sustainable agriculture in the 12 states of the North Central region.

Are you interested in submitting a proposal for an NCR-SARE grant? Before you write the grant proposal, determine a clear project goal, and look for sustainable agriculture research on your topic. Need help determining which program is best suited for your project? Go to <https://northcentral.sare.org/grants/> for more information, or contact the NCR-SARE office at ncrsare@umn.edu.

NCR-SARE GRANT TIMELINES*

Farmer Rancher*
August - Call for Proposals Released
December - Proposals Due
February - Funding Decisions
Spring - Funds Available to Recipients

Graduate Student*
February - Call for Proposals Released
April - Proposals Due
July - Funding Decisions
September - Funds Available to Recipients

Research and Education*
August - Call for Preproposals Released
October - Preproposals Due
January - Full Proposals Invited
March - Full Proposals Due
July - Funding Decisions
Fall - Funds Available to Recipients

Professional Development Program*
February - Call for Proposals Released
April - Proposals Due
July - Funding Decisions
Fall - Funds Available to Recipients

Youth Educator*
August: Call for Proposals Released
November: Proposals Due
February: Funding Decisions
Spring: Funds Available to Recipients

Partnership*
August: Call for Proposals Released
October: Proposals Due
February: Funding Decisions
March: Funds Available to Recipients
*Timelines are subject to change.

NORTH CENTRAL REGION SUSTAINABLE AGRICULTURE RESEARCH AND EDUCATION PROGRAM CONTACT INFORMATION

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Online Sales and Marketing Resources

More farmers/ranchers are pursuing online sales so they can comply with physical distancing requirements associated with COVID-19. Resources have been developed to help producers navigate online sales and marketing. View them online at <https://northcentral.sare.org/about/covid-19-sales-and-marketing-resources/>.